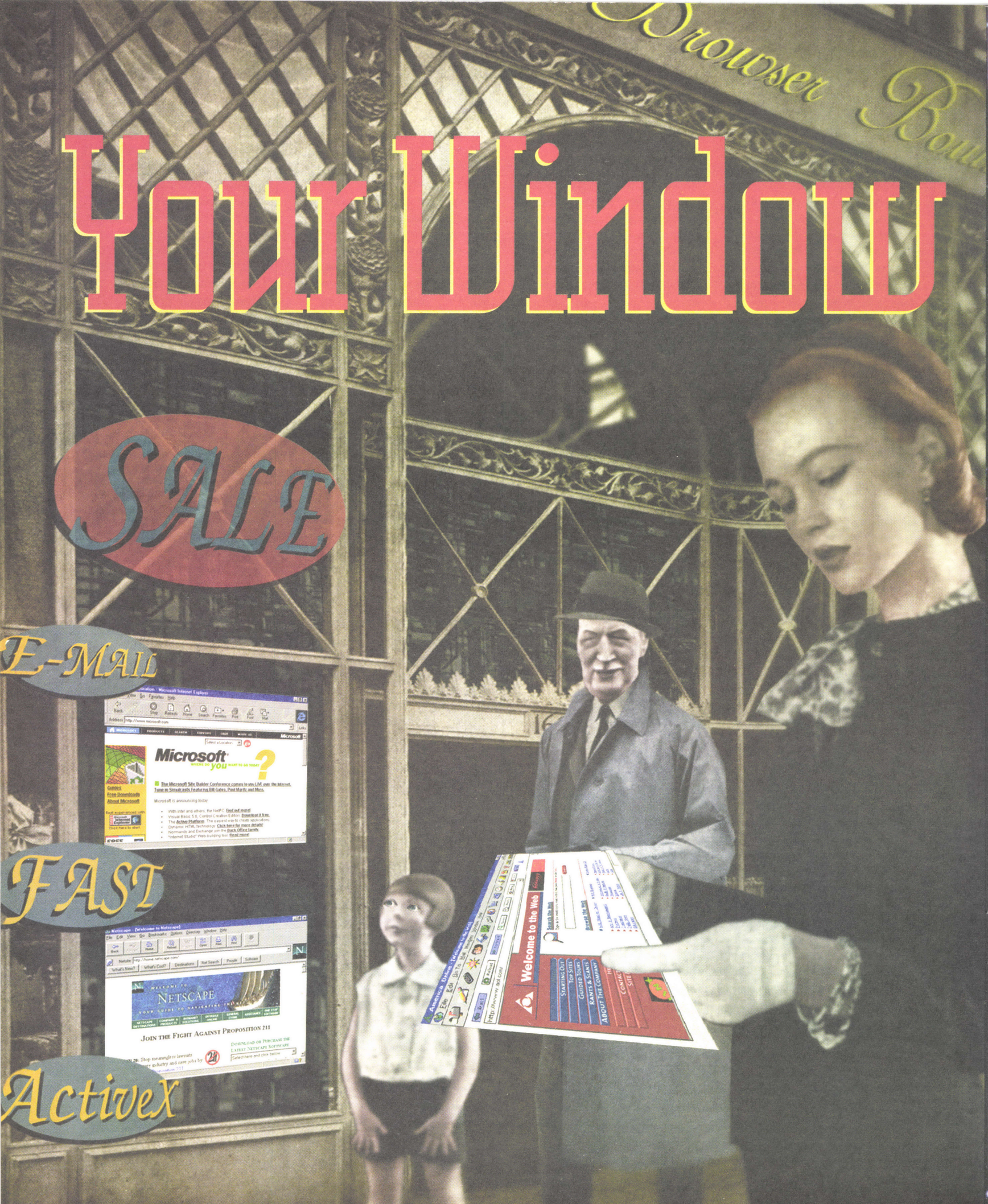
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Each browser offers a unique interface and a slightly different look and feel.

to the World Wide Web

By Kevin M. Savetz

CHOOSING A WEB BROWSER IS LIKE CHOOSING A CAR. YOU CAN GET A comfortable sedan equipped with every high-tech gizmo, a speedy roadster or something simple like a Volkswagen Bug. All will get you where you want to go.

But if you can't name the two most popular choices for browsing the Web, maybe you're not ready for your Web driver's license. (*Netscape Navigator* and *Microsoft Internet Explorer* are the leading browsers.) Either is a fine choice for exploring the Web. And there are other browser choices, too—although you might not know it based on all the publicity about Netscape and Microsoft.

The program that started the Web phenomenon is called *NCSA Mosaic*. Created at the National Center for Supercomputing Applications (NCSA), at the University of Illinois at Urbana-Champaign, *Mosaic* changed the Internet—it was the first browser available. Internet denizens now could use a sleek, graphics-laden point-and-click interface. *Mosaic* was an incredible improvement over the Internet's then-standard, text-only interface.

Internet users loved *Mosaic* for its unprecedented ease of use. Individuals and organizations that wanted to publish information online loved the power of the Web. But after the wonder wore off, everyone wanted more features. What about colored text instead of dreary black? How about better graphics support and the ability to tile company logos on Web pages?

It's the most crucial piece of Internet software you own—your Web browser. But are you using the right one?

Illustrations: Steve Munday

The battle between Microsoft and Netscape went beyond providing

"Fine," said the pleased makers of *Mosaic*, "We'll throw around some ideas, write a proposal and submit it to the Internet standards board (an industry consortium headed by the Laboratory for Computer Science at the Massachusetts Institute of Technology). After all, there are certain ways you should go about these things. Changes must be considered carefully."

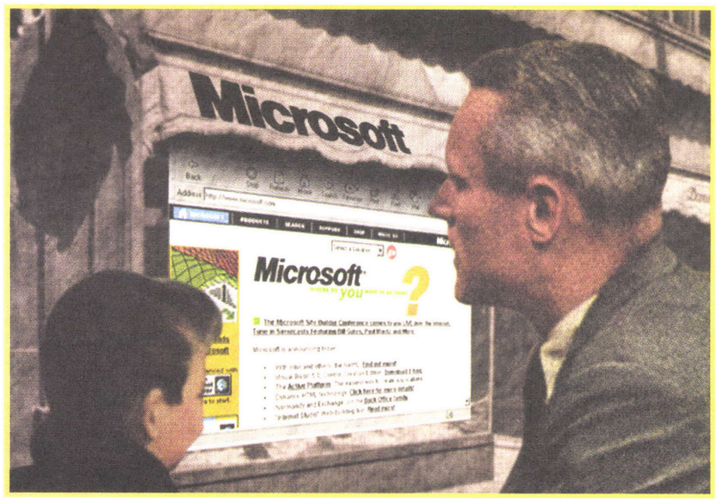
"But we want it now!" cried the ever-growing Web-using community. Enter Netscape Communications (originally called Mosaic Communications), a startup company in Mountain View, California made of ex-NCSA team members. The folks at Netscape knew they could build a better browser, so they created *Navigator*, giving users the added tools they wanted. *Navigator* was an instant hit, quickly replacing *Mosaic*'s popularity.

But nothing happens in the computer industry without someone (um, like, Bill Gates) taking note. About a year later, Microsoft unveiled its own browser—*Microsoft Internet Explorer*. *Internet Explorer* would woo many users because it was part of its Windows 95 operating system, and offered still more features than *Navigator*.

The Big Boys: Netscape and Microsoft

Last fall, Netscape and Microsoft released powerful 3.0 versions of their browsers and the choice of which to use isn't clear. Microsoft and Netscape's battle for Internet users is reminiscent of the "cola wars"—two companies hawking similar products. The browser you use is as personal a choice as the beverage you prefer.

Each browser offers a unique interface and a slightly different look and feel. Both offer features that surpass just navigating the Web: Usenet newsreaders, simple e-mail interfaces and even Internet voice chat plug-ins. Despite their similarities, though, the programs remain different in how they read



HTML tags (the elements that define the appearance of a Web page) and implement interactive features.

Explorer 3.0 is a better friend to designers. It supports "cascading style sheets," a nifty feature that lets designers control the look of a Web page in a fashion long-known to desktop publishers: by defining a template, then filling in to make each page. This makes it easy to create Web pages with a consistent look. If the Webmaster (the Website manager) later wants to change the site's look, he only needs to tweak the template (or style sheet) and all the layout changes will trickle down to the pages built from that template. Netscape says it will implement style sheets in the next version of *Navigator*, and for now is hedging with some proprietary layout tags as a stopgap.

Internet Explorer applies the World Wide Web Consortium's standard for tables. It can display a unique background image in each field of a table and hide certain table borders, but *Navigator* can not. Differences like these may only be noticed by nit-picking Web hackers—and users who happen upon a Web page that assumes your browser can do a trick it hasn't been taught.

The companies' battle for market share and rush to release software leads to problems for users and site developers. If your browser doesn't understand tags meant for another browser, you end up with a hard-to-read Web page. For this reason, site maintainers should keep their sites free of risky browser-specific features.

Multimedia and Interactivity

When it comes to interactivity and multimedia, each browser offers advantages. Both support Java and plug-in accessories. *Navigator* has a better handle on JavaScript, but *IE* is the only browser that supports *ActiveX*. (*ActiveX* provides for applications to be built into Web pages. It is not clear if Web developers will choose to support *ActiveX*, since there are so many similar technologies developing—Java, JavaScript and LiveConnect among them.)

The browser game is different for Macintosh users. Netscape scored points with Mac users by releasing its Mac and Windows browsers simultaneously. But Microsoft released the Windows version of *Explorer 3.0* two months before the Mac version, and even then, the Mac version lacks certain features, such as *ActiveX*. UNIX users have the same dilemma as Mac users, being forced to wait till after the Windows release of *Explorer*—Netscape provides a platform choice while Microsoft concentrates on its own operating systems.

Whether you're buying a car or choosing a Web browser, price is a factor. Microsoft offers its browser for free; *Navigator* is available online for free, but a version with a manual and technical support costs about $50 in computer stores.

Although *Navigator* was clearly the better product when the companies released Version 2.0, Version 3 has brought *Explorer* abreast. Don't expect a photo finish any time soon, though, because the race has barely begun.

Incentive Programs

The battle between Microsoft and Netscape went beyond providing software when both companies bundled information with their browsers. The firms now offer their users free access to information from other companies that normally charge for it.

Explorer users can have free access to several pay-for-use Web sites, including *The Wall Street Journal* Interactive Edition, ESPNet Sportszone, Investors Edge.com and MTV Online. Netscape offers a resource called InBox Direct, with which users can collect news via e-mail from numerous sources, including *The New York Times*.

These information add-ons are fine for users who want access to news, but this isn't likely to sway many users in the long run. As a result, Microsoft only plans to offer this free information for a limited time. Netscape's InBox Direct is available free elsewhere (check out **http://form.netscape.com/cgi-bin/forms/misc/ibd_form/html/ibd_services_frameset.html**.

software when both companies bundled information with browsers.

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The Other Guys

Users win and lose in the browser wars. Internet users can choose between two excellent browsers, and Web pages look more interesting and dramatic than ever before, replete with tables of data and on-screen "frames" for organizing information and interactive forms.

But there are, of course, other choices for browsers. Stroud's Consummate Winsock Apps List cites 15 browser choices for Windows (at **http:// www.icorp.net/stroud/ www.html**).

NCSA Mosaic, the program that started the Web revolution, is still available for Windows, Mac and UNIX systems. Other choices include commercial, shareware and freeware programs, as well as graphical Web browsers that don't even require a SLIP or PPP Internet connection.

Another main asset for other browsers is size. Take *MacWeb*, a tiny Web browser for the Macintosh. Although it lacks many of the features of *Navigator* and *Explorer*, it is blazingly fast and the whole thing fits on a low-density floppy. Compare that with *Explorer*'s 12-megabyte installer.

The big three online services—America Online, CompuServe and Prodigy—each offer Web browsers. America Online and CompuServe have *Microsoft Internet Explorer* built-in, although Netscape or another browser can be used with these services. Prodigy offers users its own, proprietary browser, but it's likely that as Prodigy becomes a "value-added" Internet service provider, it will join with Netscape or Microsoft to provide one of the more accepted browsers.

With set-top boxes such as WebTV's $400 unit (see feature on page 76), browsing the Web doesn't even require a computer. The Saturn NetLink, a plug-in modem for the Sega Saturn video-game system, includes a Web browser and Internet e-mail. The NetLink's built-in *PlanetWeb* browser can be used with any television set and, at about $400 including the Saturn, costs less than a home computer. Finally, if you need to surf the Web while on the road, Apple's Newton MessagePad 2000 features a built-in Web browser.

Caveat Browsor

There are many diverse choices in the browser world, and it's unlikely to stop here. As more people get on the Internet and the competition heats up even more, you can bet that browser technology will continue to improve with speedier viewing of pages and other advancements. Again, like a car, there are many ways a browser can take you where you want to go, so determine your needs and evaluate the software choices before you head out into cyberspace for a casual drive. 02

Kevin M. Savetz (savetz@northcoast.com) is a computer journalist living in Humboldt County, California with his wife, five cats, a dog, four Macs and a bevy of obsolete home computers. In AOL's AnswerMan forum, Kevin answers newbies' questions about the Internet.

NETSCAPE VS. MICROSOFT: ONE ON ONE

Netscape may have found it easy to build on the popularity of *Mosaic* and trounce the work of graduate students at NCSA, but it has bigger problems today. The company is now battling software behemoth Microsoft. Bill Gates has deemed the Internet a central component of Microsoft's strategy. Now Netscape is fighting the fight of its short life.

Microsoft began making deals with commercial online services to supply *Explorer* to its users, undercutting Netscape's efforts to do the same. For instance, just one day after Netscape announced an agreement to provide its software to America Online, the country's largest online service, Microsoft announced a coup—in an even better deal with AOL, Microsoft's browser would become the default for AOL users. Netscape's program would merely be an option for users. As payment, Microsoft will give AOL built-in access from the Windows 95 operating system, a potential audience of 20 million people.

"Strategic alliance" is the goal. Most Internet users will run the browser that is handed to them. Netscape has forged alliances with Internet providers PSI, AT&T and Netcom, which should increase *Navigator*'s user base by 10 to 20 million people. Despite Microsoft's advances, Netscape still holds a firm lead in the browser market: about 15 million people use *Navigator*; 1.3 million use *Explorer*.

When it suits the company, Microsoft even works in reluctant cooperation with Netscape. Incedentally, Netscape has been working for many months with Sun Microsystems to develop Java, a programming language bringing more interactivity to Web pages. Microsoft considered creating its own language as competition for Java, but apparently decided it wasn't worth the trouble. So Microsoft bought a license to use Java in *Explorer*.

The online industry has three facets: Content, software and Internet access. Netscape, Microsoft, America Online, CompuServe and every other company in the field must focus on the areas they know best. Netscape has clearly sided in the software category, ignoring the other two areas. This single-mindedness could make the company stronger.

On the other hand, Microsoft is working in all three areas by providing Internet access and content through The Microsoft Network, as well as Web browser and server software. Microsoft's long-term strategy is to incorporate the Internet into almost all software the company releases. It wants information to flow seamlessly between its products and the Internet. Already, its CD-ROM encyclopedia, *Encarta*, enables users to download updates from the Internet. *Microsoft Word* includes tools to help users build their own Web pages. Its *Word* and *Excel* software will include features to give users the ability to collaborate and share information over the network. Whether Microsoft's plan will work remains uncertain. Features that mesh could make it easier to work with computers, or they may just end up as annoying gimmicks. For now, the Internet community doesn't seem to be crying "We want it now!," though Microsoft has been known to give people what they want before they knew they wanted it. —K.S.